

#7



ENTERED

PCT09

## RAW SEQUENCE LISTING

DATE: 02/14/2003

PATENT APPLICATION: US/09/889,609B

TIME: 13:26:07

Input Set : A:\09-889-609 substitute sequence listing.txt

Output Set: N:\CRF4\02142003\I889609B.raw

```

4 <110> APPLICANT: Wolosker, Herman
5      Takashashi, Maasaki
6      Mothet, Jean-Pierre
7      Ferris, Christopher
8      Snyder, Solomon
10 <120> TITLE OF INVENTION: Mammalian Serine Racemase
13 <130> FILE REFERENCE: 001107.00171
C--> 15 <140> CURRENT APPLICATION NUMBER: US/09/889,609B
C--> 15 <141> CURRENT FILING DATE: 2002-07-31
15 <160> NUMBER OF SEQ ID NOS: 11
17 <170> SOFTWARE: FastSEQ for Windows Version 3.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1018
21 <212> TYPE: DNA
22 <213> ORGANISM: Mus musculus
24 <400> SEQUENCE: 1
26  atgtgtgctc agtactgcat ctccctttgct gatgttgaaa aagctcatat caacattcaa      60
27  gactctatcc acctcacccc agtgctaaca agctccattt tgaatcaaat agcagggcgc      120
28  aatctttttct tcaaatgtga gctcttccag aaaactgggt cttttaagat tcgaggtgcc      180
29  cttaatgcca tcagaggctt aattcctgac acgccagaag agaagcccaa agccgtagtt      240
30  actcacagca gcggaaccca tggccaagct ctcacctatg ctgctaaact ggaaggaatt      300
31  cctgcttaca ttgtggttcc ccaaacagct cccaactgca agaaactggc aatccaagcc      360
32  tatggagcat cgatagtata ctgtgaccca agtgacgagt ccagagaaaa ggtcactcaa      420
33  agaattatgc aagaaacaga aggcattctg gtccatccca accaggagcc tgcagtgata      480
34  gctggacaag gaacaattgc cctggaagtg ctgaaccagg ttcccttggg agatgcactg      540
35  gtggtaccag taggaggagg aggaatggtt gctggaatag ccattacaat taaggccctg      600
36  aaacctagtg tgaaggtata cgctgctgag cctcgaatg cagatgactg ctaccagtct      660
37  aaactgaaag gagaactgac ccccaatctt catcctccag aaaccatagc agatgggtgtc      720
38  aaatccagca ttggcttgaa tacctggcct attataagag accttgtgga tgatgtcttc      780
39  actgtcaccg aagatgaaat caagtatgca acccagctgg tgtggggggag aatgaaactg      840
40  ctcataggac cgactgctgg cgtggcactg gctgcagtgc tgtctcagca ttcccaaaca      900
41  gtctctccag aagtaaagaa cgtctgcatt gtactcagtg gggggaatgt agacctaac      960
42  tccctgaact ggggtgggga ggctgaacgg ccagctcctt accagacggg ctgtttaa      1018
44 <210> SEQ ID NO: 2
45 <211> LENGTH: 608
46 <212> TYPE: DNA
47 <213> ORGANISM: Homo sapiens
49 <220> FEATURE:
50 <221> NAME/KEY: misc_feature
51 <222> LOCATION: (1)...(608)
53 <221> NAME/KEY: misc_feature
54 <222> LOCATION: (1)...(608)
55 <223> OTHER INFORMATION: n = A,T,C or G

```

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```

W--> 58 <400> 2
60  ggcgcggcgc cgatgagctg agaaccatgt gtgctcagta ttgcatctcc tttgctgatg      60
61  ttgaaaaagc tcatatcaac attcgagatt ctatccacct cacaccagtg ctaacaagct      120
62  ccattttgaa tcaactaaca gggcgcaatc ttttcttcaa atgtgaactc ttccagaaaa      180
63  caggatcttt taagattcgt ggtgctctca atgccgtcag aagcttgggt cctgatgctt      240
64  tagaaaggaa gccgaaagct gttgttactc acagcagtggt aaaccatggc caggctctca      300
65  cctatgctgc caaattggaa ggaattcctg cttatatattgt ggtgccccag acagctccag      360
66  actgtaaaaa acttgcaata caagcctacg gagcgtcaat tgtatactgt gaacctagtgt      420
67  atgaagtcca gagaaaatgt tgcaaaaagg agttacagaa gaaacagaag gcatcatggt      480
68  acatcccaac caggaacctg cagtgatagc tggacaagggt acaattgccc tggagtgct      540
W--> 69  gaaccagggt cctttgggtg atccactggt ggnccctgta ggtggaagga ggaatgcttg      600
70  ccgggaat      608
72  <210> SEQ ID NO: 3
73  <211> LENGTH: 509
74  <212> TYPE: DNA
75  <213> ORGANISM: Homo sapiens
77  <220> FEATURE:
78  <221> NAME/KEY: misc_feature
79  <222> LOCATION: (1)...(509)
80  <223> OTHER INFORMATION: n = A,T,C or G
82  <400> SEQUENCE: 3
84  ctgatgccca atctttatcc tccagaaacc atagcagatg gtgtcaaatc cagcattggc      60
W--> 85  ttgaanccac tggcctatta tcagggacct tgtggatgat atcttcaactg tcacagagga      120
86  tgaaattaag tgtgcaaccc agctgggtgt ggagaggatg aaactactca ttgaacctac      180
87  agctggtggt ggagtggctg ctgtgctgtc tcaacatttt caaactgttt cccagaagt      240
88  aaagaacatt tgtattgtgc tcagtgggtg aaatgtagac ttaacctcct ccataacttg      300
89  ggtgaagcag gctgaaaggc cagcttctta tcagtctgtt tctgtttaat ttacagaaaa      360
90  ggaaatggtg ggaattcagt gtcttttagat actgaagaca ttttgtttcc tagtattgtc      420
91  aactcttagt tatcagattc ttaatggaga gtggctatct cattaagggt taatagtttt      480
92  ttttggaacta agtagtgga aaactttta      509
94  <210> SEQ ID NO: 4
95  <211> LENGTH: 32
96  <212> TYPE: DNA
97  <213> ORGANISM: Mus musculus
99  <400> SEQUENCE: 4
101  acgcgtcgac caccatgtgt gctcagtact gc      32
103  <210> SEQ ID NO: 5
104  <211> LENGTH: 34
105  <212> TYPE: DNA
106  <213> ORGANISM: Mus musculus
108  <400> SEQUENCE: 5
110  ataagaatgc ggccgcttaa acagaaaccg tctg      34
112  <210> SEQ ID NO: 6
113  <211> LENGTH: 27
114  <212> TYPE: PRT
115  <213> ORGANISM: Rat rattus
117  <400> SEQUENCE: 6
119  Leu Leu Ile Glu Pro Thr Ala Gly Val Gly Leu Ala Ala Val Leu Ser
120  1          5          10          15

```

## RAW SEQUENCE LISTING

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PATENT APPLICATION: US/09/889,609B

TIME: 13:26:08

Input Set : A:\09-889-609 substitute sequence listing.txt

Output Set: N:\CRF4\02142003\I889609B.raw

```

122  Gln His Phe Gln Thr Val Ser Pro Glu Val Lys
123          20          25
125 <210> SEQ ID NO: 7
126 <211> LENGTH: 25
127 <212> TYPE: PRT
128 <213> ORGANISM: Rat rattus
130 <400> SEQUENCE: 7
132  His Leu Asn Ile Gln Asp Ser Val His Leu Thr Pro Val Leu Thr Ser
133    1          5          10          15
135  Ser Ile Leu Asn Gln Ile Ala Gly Arg
136          20          25
138 <210> SEQ ID NO: 8
139 <211> LENGTH: 339
140 <212> TYPE: PRT
141 <213> ORGANISM: Mus musculus
143 <400> SEQUENCE: 8
145  Met Cys Ala Gln Tyr Cys Ile Ser Phe Ala Asp Val Glu Lys Ala His
146    1          5          10          15
148  Ile Asn Ile Gln Asp Ser Ile His Leu Thr Pro Val Leu Thr Ser Ser
149          20          25          30
151  Ile Leu Asn Gln Ile Ala Gly Arg Asn Leu Phe Phe Lys Cys Glu Leu
152          35          40          45
154  Phe Gln Lys Thr Gly Ser Phe Lys Ile Arg Gly Ala Leu Asn Ala Ile
155    50          55          60
157  Arg Gly Leu Ile Pro Asp Thr Pro Glu Glu Lys Pro Lys Ala Val Val
158    65          70          75          80
160  Thr His Ser Ser Gly Asn His Gly Gln Ala Leu Thr Tyr Ala Ala Lys
161          85          90          95
163  Leu Glu Gly Ile Pro Ala Tyr Ile Val Val Pro Gln Thr Ala Pro Asn
164          100          105          110
166  Cys Lys Lys Leu Ala Ile Gln Ala Tyr Gly Ala Ser Ile Val Tyr Cys
167          115          120          125
169  Asp Pro Ser Asp Glu Ser Arg Glu Lys Val Thr Gln Arg Ile Met Gln
170          130          135          140
172  Glu Thr Glu Gly Ile Leu Val His Pro Asn Gln Glu Pro Ala Val Ile
173    145          150          155          160
175  Ala Gly Gln Gly Thr Ile Ala Leu Glu Val Leu Asn Gln Val Pro Leu
176          165          170          175
178  Val Asp Ala Leu Val Val Pro Val Gly Gly Gly Met Val Ala Gly
179          180          185          190
181  Ile Ala Ile Thr Ile Lys Ala Leu Lys Pro Ser Val Lys Val Tyr Ala
182          195          200          205
184  Ala Glu Pro Ser Asn Ala Asp Asp Cys Tyr Gln Ser Lys Leu Lys Gly
185          210          215          220
187  Glu Leu Thr Pro Asn Leu His Pro Pro Glu Thr Ile Ala Asp Gly Val
188    225          230          235          240
190  Lys Ser Ser Ile Gly Leu Asn Thr Trp Pro Ile Ile Arg Asp Leu Val
191          245          250          255
193  Asp Asp Val Phe Thr Val Thr Glu Asp Glu Ile Lys Tyr Ala Thr Gln

```

## RAW SEQUENCE LISTING

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TIME: 13:26:08

Input Set : A:\09-889-609 substitute sequence listing.txt

Output Set: N:\CRF4\02142003\I889609B.raw

```

194          260          265          270
196 Leu Val Trp Gly Arg Met Lys Leu Leu Ile Glu Pro Thr Ala Gly Val
197          275          280          285
199 Ala Leu Ala Ala Val Leu Ser Gln His Phe Gln Thr Val Ser Pro Glu
200          290          295          300
202 Val Lys Asn Val Cys Ile Val Leu Ser Gly Gly Asn Val Asp Leu Thr
203 305          310          315          320
205 Ser Leu Asn Trp Val Gly Gln Ala Glu Arg Pro Ala Pro Tyr Gln Thr
206          325          330          335
208 Val Ser Val
211 <210> SEQ ID NO: 9
212 <211> LENGTH: 1023
213 <212> TYPE: DNA
214 <213> ORGANISM: Homo sapiens
216 <400> SEQUENCE: 9
218 atgtgtgctc agtattgcat ctcttttgct gatgttgaaa aagctcatat caacattcga 60
219 gattctatcc acctcacacc agtgctaaca agctccattt tgaatcaact aacagggcgc 120
220 aatcttttct tcaaagtga actcttccag aaaacaggat cttttaagat tctgtggtgct 180
221 ctcaatgccg tcagaagctt ggttcctgat gctttagaaa ggaagccgaa agctgttggt 240
222 actcacagca gtggaaacca tggccaggct ctcacctatg ctgccaaatt ggaaggaatt 300
223 cctgcttata ttgtggtgcc ccagacagct ccagactgta aaaaacttgc aatacaagcc 360
224 tacggagcgt caattgtata ctgtgaacct agtgatgagt ccagagaaaa tgttgcaaaa 420
225 agagttacag aagaaacaga aggcattcat gtacatccca accaggagcc tgcagtgata 480
226 gctggacaag ggacaattgc cctggaagtg ctgaaccagg ttcttttggg ggatgcactg 540
227 gtggtacctg taggtggagg aggaatgctt gctggaatag caattacagt taaggctctg 600
228 aaacctagtg tgaaggtata tgctgctgaa cctcctcagg agatgactg ctaccagtcc 660
229 aagctgaagg ggaactgat gcccaatctt tctcctcagg aaacctatgc agatggtgct 720
230 aaatccagca ttggcttgaa cacctggcct attatcaggg accttgtgga tgatatcttc 780
231 actgtcacag aggatgaaat taagtgtgca acccagctgg tgtgggagag gatgaaacta 840
232 ctcatgaac ctacagctgg tgttgagtg gctgctgtgc tgtctcaaca ttttcaaact 900
233 gtttccccag aagtaaagaa catttgtatt gtgctcagtg gtggaaatgt agacttaacc 960
234 tctccataa cttgggtgaa gcaggctgaa aggccagctt cttatcagtc tgtttctggt 1020
235 taa 1023
237 <210> SEQ ID NO: 10
238 <211> LENGTH: 340
239 <212> TYPE: PRT
240 <213> ORGANISM: Homo sapiens
242 <400> SEQUENCE: 10
244 Met Cys Ala Gln Tyr Cys Ile Ser Phe Ala Asp Val Glu Lys Ala His
245 1 5 10 15
247 Ile Asn Ile Arg Asp Ser Ile His Leu Thr Pro Val Leu Thr Ser Ser
248 20 25 30
250 Ile Leu Asn Gln Leu Thr Gly Arg Asn Leu Phe Phe Lys Cys Glu Leu
251 35 40 45
253 Phe Gln Lys Thr Gly Ser Phe Lys Ile Arg Gly Ala Leu Asn Ala Val
254 50 55 60
256 Arg Ser Leu Val Pro Asp Ala Leu Glu Arg Lys Pro Lys Ala Val Val
257 65 70 75 80
259 Thr His Ser Ser Gly Asn His Gly Gln Ala Leu Thr Tyr Ala Ala Lys

```

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Input Set : A:\09-889-609 substitute sequence listing.txt

Output Set: N:\CRF4\02142003\I889609B.raw

260		85		90		95
262	Leu Glu Gly Ile Pro Ala Tyr Ile Val Val Pro Gln Thr Ala Pro Asp					
263		100		105		110
265	Cys Lys Lys Leu Ala Ile Gln Ala Tyr Gly Ala Ser Ile Val Tyr Cys					
266		115		120		125
268	Glu Pro Ser Asp Glu Ser Arg Glu Asn Val Ala Lys Arg Val Thr Glu					
269		130		135		140
271	Glu Thr Glu Gly Ile Met Val His Pro Asn Gln Glu Pro Ala Val Ile					
272		145		150		155
274	Ala Gly Gln Gly Thr Ile Ala Leu Glu Val Leu Asn Gln Val Pro Leu					
275		165		170		175
277	Val Asp Ala Leu Val Val Pro Val Gly Gly Gly Gly Met Leu Ala Gly					
278		180		185		190
280	Ile Ala Ile Thr Val Lys Ala Leu Lys Pro Ser Val Lys Val Tyr Ala					
281		195		200		205
283	Ala Glu Pro Ser Asn Ala Asp Asp Cys Tyr Gln Ser Lys Leu Lys Gly					
284		210		215		220
286	Lys Leu Met Pro Asn Leu Tyr Pro Pro Glu Thr Ile Ala Asp Gly Val					
287		225		230		235
289	Lys Ser Ser Ile Gly Leu Asn Thr Trp Pro Ile Ile Arg Asp Leu Val					
290		245		250		255
292	Asp Asp Ile Phe Thr Val Thr Glu Asp Glu Ile Lys Cys Ala Thr Gln					
293		260		265		270
295	Leu Val Trp Glu Arg Met Lys Leu Ile Glu Pro Thr Ala Gly Val					
296		275		280		285
298	Gly Val Ala Ala Val Leu Ser Gln His Phe Gln Thr Val Ser Pro Glu					
299		290		295		300
301	Val Lys Asn Ile Cys Ile Val Leu Ser Gly Gly Asn Val Asp Leu Thr					
302		305		310		315
304	Ser Ser Ile Thr Trp Val Lys Gln Ala Glu Arg Pro Ala Ser Tyr Gln					
305		325		330		335
307	Ser Val Ser Val					
309	<210> SEQ ID NO: 11					
310	<211> LENGTH: 1670					
311	<212> TYPE: DNA					
312	<213> ORGANISM: Mus musculus					
314	<400> SEQUENCE: 11					
316	gacottacac cttttgccac actggtcctg ggccaagatg ggccaatcaa agtccttacc					60
317	cagaattttt tgaactgaaa ttgagagaga atccctcttc agtatggaag ccataaaatg					120
318	taaaacacag gagctgtcag cagccatgtg tcttgcagta cggagccagc tggctctgctg					180
319	tgagaaggaa gccgccgtgc cagaggcagc agagaacccat gtgtgctcag tactgcatct					240
320	cctttgctga tgttgaaaaa gtcatatca acattcaaga ctctatccac ctcaccccag					300
321	tgctaacaag ctccattttg aatcaaatag cagggcgcaa tcttttcttc aaatgtgagc					360
322	tcttccagaa aactgggtct tttaagattc gaggtgccct taatgccatc agaggcttaa					420
323	ttcttgacac gccagaagag aagcccaaag ccgtagttag tcacagcagc ggaaaccatg					480
324	gccaagctct cacctatgct gctaaactgg aaggaattcc tgcttacatt gtggttcccc					540
325	aaacagctcc caactgcaag aaactggcaa tccaagccta tggagcatcg atagtatact					600
326	gtgacccaag tgacgagtc agagaaaagg tcaactcaa aattatgcaa gaaacagaag					660
327	gcattcttgg ccatcccaac caggagcctg cagtgatagc tggacaagga acaattgccc					720

RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 02/14/2003  
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Input Set : A:\09-889-609 substitute sequence listing.txt  
Output Set: N:\CRF4\02142003\I889609B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; N Pos. 573

Seq#:3; N Pos. 66

**VERIFICATION SUMMARY**

DATE: 02/14/2003

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Input Set : A:\09-889-609 substitute sequence listing.txt

Output Set: N:\CRF4\02142003\I889609B.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application No  
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:58 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2  
L:69 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:540  
L:85 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:60